

**TETRA TECH, INC.**

4213 State St., Suite 205
 Santa Barbara, CA 93101
 Telephone (805) 681-3100
 FAX (805) 631-3108

Project: **Vandenberg Air Force Base**
 Log of Well No. **7-MW-5**

Location: **OU5, Site 7, Bear Creek Canyon, approx. 2000 ft southeast of intersection of Bear Creek Canyon and Surf Road.**

Date Started: **7/6/94** Completed: **7/8/94**

Logged By: **J.Rohrer/K.Beeler** Checked By: **R. Horwath, RG**

Drilled By: **T. De Vries, Layne Env.**

Drilling Equipment: **CME 750, HSA**

Sampling Equipment: **2" ID Split-spoon**

GS Elev.: **147.5** ft above MSL TD: **95.6** ft bgs

4" PVC Blank Casing: from **0** ft bgs to **22** ft bgs

.010 " Screened Casing: from **22** ft bgs to **32** ft bgs

Bentonite/Cement Grout: from **1.5** ft bgs to **17** ft bgs

Bentonite Transition Seal: from **17** ft bgs to **20** ft bgs

2/12 Sand Filter Pack: from **20** ft bgs to **35** ft bgs

TOC Elev.: **150.05** ft above MSL

Depth (ft bgs)	DESCRIPTION	Graphic/ USCS	Well Construction	Sample Blow Counts Per 6"	Percent Recovery	PID(ppm) Amb/Smp	REMARKS
	<u>silty sand</u> black (10 YR 2/1), fine grained, with some medium and coarse grained, moderate silt, moderately sorted, subrounded, medium dense, slightly moist, fill.	SM		4 6 9	100	0/0	Start 1350. Sample V7MW5-0 sent for chemical tests.
5	<u>silty sand</u> brown (10YR 4/3), moist, possible base of fill at 3' bgs.	SM		2 4 6	100	0/0	
10	<u>silty sand</u> olive brown (2.5Y 4/3), fine to coarse grained, trace fine gravel, poorly sorted, subrounded, medium dense, slightly moist, alluvium.			5 8 12	100	0/0	Sample V7MW5-9 sent for chemical tests.
15	Same, except without gravel.			4 6 9	100	0/0	Sample V7MW5-14 sent for chemical tests.
	Same, except dark brown (7.5YR 3/2), moderate iron staining, wet.			4 5	33	0/0	Sample V7MW5-19 sent for chemical

19.0 ft bgs Groundwater depth during drilling

17.8 ft bgs Groundwater depth after well development on: **7/29/94**

TC Number: **7301-11**

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Depth (ft bgs)	DESCRIPTION	Graphic/ USCS	Well Construction	Sample Blow Counts Per 6"	Percent Recovery	PID(ppm) Amb/Smp	REMARKS
	<u>silty sand</u> dark brown (7.5YR 3/2), fine to coarse grained, moderately sorted, subangular to rounded, moderate iron staining, medium dense, wet, alluvium.	SM		10			tests.
25	Same, except black (7.5YR 2.5/1), fine grained, trace clay.			4 5 10	100	0/0	Start of PVC vee-wire screen. Saturated. Sample V7MW5-25 sent for physical tests.
30	Same, except light olive brown (2.5Y 5/3), fine to medium grained, minor clay.			5 5 7	89	0/0	
35	Same, except gray (5Y 6/1), trace coarse angular gravel, poorly sorted, two thin inner lenses of clayey sand and clay.			12 13 19	89	0/0	Sample V7MW5-34 sent for chemical tests. TD of 12" auger = 35'.
40	<u>clayey sand</u> gray (5Y 6/1), fine grained, poorly sorted, subangular to rounded, low plasticity, medium dense, interlayered with silty fine sand, wet, alluvium.	SC		12 13 19	100	0/0	
	<u>silty sand</u> dark grayish brown (2.5Y 3/2), fine grained, trace fine gravel, trace clay, poorly sorted, subangular to rounded,	SM		3 5	100	0/0	

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Depth (ft bgs)	DESCRIPTION	Graphic/ USCS	Well Construction	Sample	Blow Counts Per 6"	Percent Recovery	PID(ppm) Amb/Smp	REMARKS
	moderate decay odor, medium dense, very moist, alluvium. <u>silty sand</u> dark grayish brown (2.5Y 3/2), fine grained, trace fine grained gravel, trace clay, poorly sorted, subangular to rounded, moderate decay odor, medium dense, very moist, alluvium.	SM			15			
50	Same, except very moist.				3 5 9	100	0/0	
55					3 7 9	100	0/0	
60	Same, except with 20% coarse gravel, subangular.				2 2 3	100	0/0	
65	<u>sandy silt</u> dark gray (5Y 4/1), fine grained, trace clay, subangular to rounded, moist, possible Careaga Formation.	ML			7 9 11	100	4.9/ 6.6	Sample V7MW5-64 sent for chemical tests.
	<u>silt</u> dark gray (5Y 4/1), minor fine grained sand, trace clay, subangular to rounded, moist, possible Careaga Formation.				15 49	100	.2/1.8	

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	<u>silt</u> dark gray (5Y 4/1), minor fine grained sand, trace clay, subangular to rounded, moist, possible Careaga Formation.	ML		50/3"			
75				15 21 43	100	0/0	
80				24 40 50	100	0/0	Sample V7MW5-79 sent for chemical tests.
85				20 35 50/4"	100	0/0	
90	Same, homogeneous.			20 35 50/3"	100	0/0	
				35 35	100	0/0	Sample V7MW5-94 sent for chemical

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100	silt dark gray (5Y 4/1). minor fine grained sand, trace clay, subangular to rounded, moist, possible Careaga Formation.				50/3"			tests. End Time. TD of 8" auger = 95.5'. NOTE: Drilled to 95.5' bgs. Plug-back with bentonite/cement grout to 38'. Set benonite chips from 38' to 35' bgs and construct 4" well.
105								
110								
115								